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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,251	03/22/2001	Yihua Chang	11302-1040 (44040-251242)	6502

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EXAMINER

DICUS, TAMRA

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 10/24/2002

8

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/815,251

Applicant(s)

CHANG ET AL.

Examiner

Tamra L. Dicus

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 October 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-7, 12-17 and 19-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-11, 18 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 8-11 and 18-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. All claims either recite or refer to a “triggerable cationic polymer”. The term “triggerable” does not describe what makes a polymer “triggerable”, which renders the claim indefinite. The term “triggerable” is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 8-11 and 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 4,356,229 to Brodnyan et al.

Brodnyan teaches a nonwoven product comprising a binder composition that is hard or

Art Unit: 1774

soft, which is integrated into the nonwoven web. Brodnyan teaches it is known to add components such as butyl acrylate, 2-ethylhexyl acrylate, acrylic acid, insolublizing agents at col. 7, lines 65+), and a salt to nonwoven fabrics (see col. 5, lines 12-60, col. 7, lines 1-44, col. 8, lines 15-65). See Examples 1-4 where Brodnyan teaches various polymers used for fabrics with their weight percentages (above 0.5 wt %). Brodnyan produces a polymeric composition with the same components and therefore the polymeric composition is equivalent to a triggerable cationic polymer. Brodnyan explains the advantages of using such a composition is for the purpose of forming wet strength fabric and to impart soft and flexible properties (see col. 4, lines 55-65 and col. 5, lines 20-21).

6. Regarding claim 11, the recitation "being wetted..." is a process limitation in a product claim. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. Patentability of an article depends on the article itself and not the method used to produce it (see MPEP 2113). Furthermore, the invention defined by a product-by-process invention is a product NOT a process. *In re Bridgeford*, 357 F. 2d 679. It is the patentability of the product claimed and NOT of the recited process steps which must be established. *In re Brown*, 459 F. 2d 531.

7. Regarding claim 19, the recitation "being wetted..." is a process limitation in a product claim, process notwithstanding.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1774

9. Claims 8-11, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,127,593 to Bjorkquist et al. in view of USPN 4,356,229 to Brodnyan et al.

Bjorkquist teaches a paper product with wet strength (wet wipe), toilet, facial, and feminine hygiene products that comprise a cationic binder composition with a salt such as sodium chloride see col. 5, lines 15-30. Bjorkquist explains a wet strength binder is a polymer and a salt, and the method of combining the components with fibers at col. 6, lines 23-50. While Bjorkquist's binder composition is not described as a triggerable cationic polymer, Bjorkquist describes using the same cations at col. 5, lines 20-30 and Brodnyan teaches using polymers such as butyl acrylate, 2-ethylhexyl acrylate, acrylic acid, insolublizing agents at col. 7, lines 65+), and a salt. Hence, it would have been obvious to one of ordinary skill in the art to modify the nonwoven products of Bjorkquist to include the polymers of Brodnyan for the very reason of providing soft and flexible properties, and/or to form wet strength fabric as taught by Brodnyan at col. 4, lines 55-65 and col. 5, lines 20-21. Bjorkquist and Brodnyan are analogous art because both references are in the same field of endeavor, such as nonwoven technology.

Bjorkquist does not explicitly state using additional insolublizing agents. Bjorkquist does explain, however, that when using a salt with a polymer, it is insoluble in aqueous fluids at col. 2, line 29. Moreover, Brodnyan teaches using insoluabilizing agents at col. 7, lines 65+. Hence, it would have been obvious to one of ordinary skill in the art to modify the nonwoven product with binder composition of Bjorkquist to include additional insoluablizing agents as taught by Brodnyan to impart use the product in the textile industry as taught by Brodnyan at col. 6, lines 65-68. The examiner has established a *prima facie* case of obviousness and has provided evidentiary support thereof for the rejection under 35 U.S.C. 103(a).

Art Unit: 1774

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

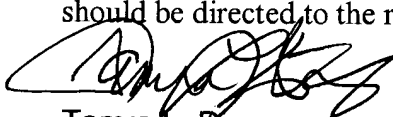
11. USPN 5,451,432 to Lofton teaches a method of applying a binder composition to a nonwoven fabric.

12. USPN 6,413,621 to Mayes et al. teaches applying a first and second polymer which is insoluble and used in personal nonwoven products.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is (703) 305-3809. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-8329 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Tamra L. Dicus  
Examiner  
Art Unit 1774

CYNTHIA H. KELLY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700

October 18, 2002

